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09/552,985	04/21/2000	Sai V. Allavaru	5181-46200	7125

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EXAMINER

DINH, KHANH Q

ART UNIT

PAPER NUMBER

2151

DATE MAILED: 07/20/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/552,985

Applicant(s)

ALLAVARPU ET AL.

Examiner

Khanh Dinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is in response to the Response to the Office Action filed on 4/22/2004 (paper # 12). Claims 1-31 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 5, 7, -10, 13-16, 18-21, 26, 27 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Schofield, US pat. No.6,263,485.

As to claim 1, Schofield discloses a method for managing a network, the method comprising:

a client (101 fig.4) generating a request for type information for an attribute or event, wherein the request is expressed in an interface definition language (i.e., IDL language), wherein the interface definition language is operable to define object interfaces across a plurality of platforms and across a plurality of programming languages (see abstract, figs.1, col.4 line 45 to col.5 line 67 and col.6 lines 1-49).

sending the request for type information to an object request broker (112 fig.4) and a metadata gateway (server stub 87 fig.4) receiving the request for type information from the object request broker (see fig.4, col.6 line 50 to col.7 line 17).

reading the type information from a metadata repository, wherein the type information is stored in a database format in the metadata repository (implementation 81 fig.4) and translating the type information from the database format to the interface definition language (see fig.2, col.3 lines 7-38 and col.6 line 41 to col.7 line 63).

the metadata gateway sending the translated type information to the object request broker (112 fig.4) and the client receiving the translated type information for the attribute or event through the object request broker, wherein the translated type information is expressed in the interface definition language (see fig.5, col.7 line 20 to col.8 line 67 and col.10 lines 9-51).

As to claims 5 and 13, Schofield discloses sending the request for type information to an object request broker, the metadata gateway receiving the request for type

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information from the object request broker, the metadata gateway sending the translated type information to the object request broker, and the client receiving the translated type information for the attribute or event through the object request broker are effected via an internet inter-object communication protocol (using IDL source file as translation unit, see fig.4, col.3 line 8 to col.4 line 12 and col.5 line 17 to col.6 line 65).

As to claim 7, Schofield discloses the metadata gateway is implemented on a single server computer system (see fig.4).

As to claim 8, Schofield discloses the metadata gateway is distributed over a plurality of servers, wherein each of the plurality of servers presents a substantially identical view of the metadata gateway (see figs 1, 4, col.5 line 5 to col.6 line 65 and col.7 line 20 to col.8 line 67).

As to claims 9 and 26, Schofield discloses the interface definition language is class independent (see col.5 line 5 to col.6 line 65 and col.7 line 20 to col.8 line 67).

As to claim 10, Schofield discloses a method for managing a network, the method comprising:

a client (101 fig.4) generating a request to encode type information for an object, attribute, or event, wherein the request is expressed in an interface definition language (expressed in IDL languages), wherein the interface definition language is operable to

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define object interfaces across a plurality of platforms and across a plurality of programming languages (see abstract, figs.1, col.4 line 45 to col.5 line 50 and col.6 lines 1-49).

sending the request to an object request broker (112 fig.4) and a metadata gateway (87 fig.4) receiving the request to encode the type information from the object request broker and translating the type information from the interface definition language to a database format (see col.6 line 50 to col.7 line 17).

storing the type information in a metadata repository (81 fig.4), wherein the type information is stored in a database format in the metadata repository (see fig.5, col.7 line 20 to col.8 line 67 and col.10 lines 9-51).

As to claim 14, Schofield discloses a network management system comprising:

a metadata repository (81 fig.4) comprises metadata concerning object classes for a plurality of managed objects, wherein the metadata comprising information expressed in a database format, and wherein the managed objects correspond to managed devices (87, 77 fig.4 on a network languages (see abstract, figs.1, col.4 line 45 to col.5 line 50 and col.6 lines 1-49).

a metadata gateway (87 fig.4) which is communicatively coupled to the repository and to an object request broker (112 fig.4), wherein the metadata gateway is operable to send and receive the metadata from the database, wherein the metadata gateway provides translation (using IDL source file as translation unit, see fig.4, col.3 line 8 to col.4 line 12) of the metadata to and from the database format and an interface

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definition language, wherein the interface definition language is operable to define object interfaces across a plurality of platforms and across a plurality of programming languages (see fig.5, col.7 line 20 to ocl.8 line 67 and col.10 lines 9-51).

As to claims 18-19 and 21, Schofield discloses plurality of object types is a programming-language independent and platform independent interface including CORBA objects and COBRA ORB (see col.3 lines 8-51).

As to claim 20, Schofield discloses the object request broker is configurable to be accessed by a plurality of network management clients to obtain the metadata as expressed in the generic interface (see col.7 line 20 to ocl.8 line 67 and col.10 lines 9-51).

As to claim 22, Schofield discloses a carrier medium comprising program instructions, wherein the program instructions are computer-executable to implement:

a metadata gateway (87 fig.4) receiving a request for type information from an object request broker (112 fig.4) (see abstract, figs.1, 4, col.4, col.6 lines 1-49).

reading the type information from a metadata repository (81 fig.4), wherein the type information is stored in a database format in the metadata repository and translating the type information from the database format to an interface definition language (i.e., using IDL source file as translation unit, see fig.4, col.3 line 8 to col.4 line 12) and using the

metadata gateway sending the translated type information to the object request broker (see fig.5, col.7 line 20 to col.8 line 67 and col.10 lines 9-51).

As to claim 27, Schofield discloses a carrier medium comprising program instructions which are computer executable to implement:

a metadata gateway (87 fig.4) receiving a request to encode type information from an object request broker (112 fig.4) (see abstract, figs.1, 4, col.4 line 45 to col.5 line 50 and col.6 lines 1-49).

translating the type information from an interface definition language to a database format storing the type information in a metadata repository (81 fig.4) (i.e., using IDL source file as translation unit, see fig.4, col.3 line 8 to col.4 line 12), wherein the type information is stored in a database format in the metadata repository (81 fig.4) (see fig.5, col.7 line 20 to col.8 line 67 and col.10 lines 9-51).

As to claim 15 and 16, Schofield discloses a telephone system and a network switch (see figs.3, 4, col.5 line 51 to col.7 line 18).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 2-4, 6, 11, 12, 17, 23-25 and 28-30 are rejected under 35 USC § 103(a) as being unpatentable over Schofield, US pat. No.6,263,485 in view of Kulkarni et al US pat. No.5,848,243.

As to claims 2-4, 6, 17, 23-25 and 28-30, Schofield 's teachings still applied as in claim 1 above. Schofield further discloses translating data type from the data base format and IOP (col.2 line 9 to col.3 line 39 and col.6 line 14 to col.7 line 18).

Schofield does not specifically disclose translating the type information from the database format to an abstract syntax notation and ASN1, and then translating the type information from the abstract syntax notation to the interface definition language.

However, Kulkarni discloses using different data formats with the use of an abstract syntax notation including ASN1 (see abstract, col.6 lines 20-43). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to utilize ASN1 in the computer system of Schofield to translating data formats because it would have facilitated the exchange of structured data especially between application

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programs over networks by describing data structures in a way that is independent of machine architecture and implementation language.

Claims 11 and 12 are rejected for the same reasons set forth in claims 2 and 4 respectively.

Response to Arguments

6. Applicant's arguments filed on 4/22/2004 have been fully considered but they are not persuasive.

a. Applicant asserts that the Schofield reference fails to disclose "a client generating a request for type information for an attribute or event, wherein the request is expressed in an interface definition language".

Examiner respectfully disagrees. Schofield discloses the Applicant's claimed invention by using a Common Execution Environment for receiving requests and objects calls from other capsules including a client side. Furthermore, the capsule uses the configuration data to determine which Implementation Library to load and creating an object initialization routine to create the object according to the requests. Requests may include an IDL source file contains one or more interface definitions, data type definitions (see abstract, figs. 1, col. 4 line 45 to col. 5 line 67 and col. 6 lines 1-49) as rejected above.

b. Applicant further asserts that the Schofield reference does not disclose translating the type information from the interface definition language to a database format.

Examiner respectfully points out that Schofield discloses translating the type information from the interface definition language to a database format (using an IDL source file). For example, in a typical system implementing the CORBA specification, interface definitions are written in an IDL-defined source file (also known as a "translation unit"). Users utilize the source file that is compiled by an IDL compiler that generates programming-language-specific files, including client stub files, server stub files, and header files (see fig.4, col.3 lines 7-38 and see col.6 line 13 to col.7 line 17).

Therefore, the examiner asserts that cited prior art teaches or suggests the subject matter broadly recited in independent claims 1, 10, 14, 22 and 27. Claims 2-9, 11-13, 15-21, 23-26 and 28-31 are also rejected at least by virtue of their dependency on independent claims and by other reasons set forth in the previous office action [see paper no. 11]. Accordingly, claims 1-31 are respectfully rejected.

Conclusion

7. Claims 1-31 are *rejected*.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Dinh whose telephone number is (703) 308-8528. The examiner can normally be reached on Monday through Friday from 8:00 A.m. to 5:00 P.m.

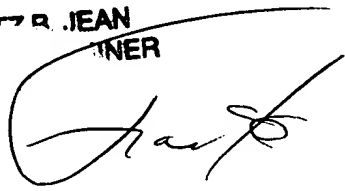
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess, can be reached on (703) 305-4792. The fax phone number for this group is (703) 872-9306.

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A shortened statutory period for reply is set to expire THREE months from the mailing date of this communication. Failure to response within the period for response will cause the application to become abandoned (35 U.S. C . Sect. 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(A).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305 -9600.

Khanh Dinh
Patent Examiner
Art Unit 2151
July 9, 2004

FRANTZ B. JEAN
EXAMINER

FRANTZ B. JEAN
PRIMARY EXAMINER